

COASTAL IMPACT ASSISTANCE PROGRAM

Jefferson Parish Project Nominee Fact Sheet

Project Title: Lower Lafitte Shoreline Stabilization at Bayou Rigolettes
(Grand Isle Water Tank) and Barataria Bay Waterway

Entity/Individual nominating the project: Jefferson Parish, Louisiana

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Total CIAP Funds Requested: \$ 4,700,000

Parish CIAP Funds Proposed: \$ 4,700,000

State CIAP Funds Requested: \$ 0

Infrastructure Funds Proposed: N/A

Description and Location of the Project: The project is located in Lafitte, Louisiana, at the intersection of Bayou Rigolettes and Bayou Barataria, and extends south along Bayou Barataria for approximately 1.5 miles and west along Bayou Rigolettes approximately 0.25 miles. It also includes the area directly adjacent to the water tank that services Grand Isle, Louisiana which is located at the end of privateer Boulevard, along the north shoreline of bayou Rigolettes at the right descending bank of Bayou Barataria.

10,600 linear feet of foreshore rock dike is to be constructed on the west bank of Bayou Barataria and the southern edge of Bayou Rigolettes to protect the bank of Barataria Waterway and adjacent interior marshes. A water control structure will be installed to limit saltwater intrusion into the marsh area, optimize water levels for wintering waterfowl, and prevent ponding of storm waters. The preliminary structure concept/design for the water control feature consists of three, 48-inch diameter, 30-foot-long, 12-gauge corrugated aluminum pipes, each fitted with a 6-foot-high, 10-foot-wide, stop-log riser.

Features adjacent to the water tank would include furnishing and installation of precast concrete barrier wall panels, consisting of vertical pre-stressed concrete sheetpiles, approximately 6" thick x 8 feet wide x 20 LF long. These sheetpile slabs would be supported along each length by 60 foot long precast concrete piles having an "H" - Pile configuration for the top 20 feet, and driven at 8.5 ft, c.c. along the wall alignment. The barrier wall segments would be driven approximately 12 ft. from the bank, and the area between the structures and the shore would be back-filled using hauled-in or dedicated dredging material. The embankments would then be capped off with cement/concrete pavement to eliminate further erosion.

Project Type: Conservation, restoration and protection of coastal area, including wetland

Project Justification: This project would protect the integrity of the western bank of the Barataria Bay Water Way and the north shoreline of Bayou Rigolettes at its intersection with the Bayou Barataria, near Lafitte, Louisiana, and would provide protection for the foundation and site of an existing water tank facility that provides potable drinking water to the coastal community of Grand Isle, Louisiana. The project would also eliminate further erosion

of the north bank of Bayou Rigolettes directly at its intersection with Bayou Barataria, cease the widening of the channel, and reduce saltwater intrusion and deterioration of the interior marshes.

The project area is experiencing extreme degradation mainly due to wave action induced in part by marine industry activity. As a consequence of bankline erosion, the foundation for Grand Isle water tank is in jeopardy. Many ships and barges servicing the oil and gas industry utilize the Port of Grand Isle, Louisiana, as a source for potable water. This particular water tank facility is considered critical infrastructure which directly supports OSC activity. Barriers in the form of concrete sheetpile walls would be utilized to stabilize the bankline. The project also reclaims some area that has been lost, and provides a concrete apron which may be utilized to maximize docking space at the site.

This project will also protect the shoreline of the Bayou Barataria Waterway, an important navigational route for the transportation of offshore oil and gas supplies and products; protects approximately 670 acres of marsh habitat on the Barataria Landbridge; and enhances storm surge protection for residents of lower Lafitte, Louisiana. This project would provide synergy with previously constructed CWPPRA projects in the area, which include: Barataria Bay Waterway West Side Shoreline Protection (BA-23); Barataria Basin Landbridge Shoreline Protection, Phase 4 (BA-27d); and Jonathan Davis Wetland Restoration (BA-20).

The water control structure will limit saltwater intrusion; prevent impoundment of high salinity waters following extreme tidal effects such as occurred with Hurricane Rita in 2005; and, promote marsh health in this area of the Barataria Landbridge.

The project is consistent with the following coastal restoration initiatives:

COAST 2050: TOWARD A SUSTAINABLE COASTAL LOUISIANA:

Coastwide Strategy:

Stabilization of Major Navigational Channels;
Maintain or Restore Ridge Functions.

Regional Strategy:

- # 2. Restore natural drainage patterns.
- #24. Build entire Breaux Act land bridge shore protection project.
- #25. Preserve bay and lake shoreline integrity on the land bridge
- #26. Dedicated dredging to create marsh on the land bridge.

Previously Proposed Strategies:

- Preserving the ridge along the Barataria Waterway
- Stabilizing the banks of the Barataria Waterway
- Protecting the shorelines of the large lakes
- Managing hydrology by preventing increase in tidal scour and salinity intrusion
- Maintain or Restore Ridge Functions.

COASTAL IMPACT ASSISTANCE PROGRAM (CIAP):

Protect Critical infrastructure

Project Cost Share: State = 0 %
Parish = 0 %

